REMARKS

Courtesies extended to Applicant's representative at the personal interview held June 24, 2003, are acknowledged with appreciation.

In accordance with the present invention, there is provided a simple, inexpensive and portable apparatus for heating and pasteurizing liquids, as well as methods using same. The simple and portable design is useful for providing a renewable supply of drinking water. Moreover, invention apparatus is relatively inexpensive to manufacture, is trouble free and reliable in use, and may be readily collapsed and folded for storage or transport.

As discussed at the personal interview, in one aspect, invention solar water pasteurizers comprise a one-piece device comprising a container having at least one resealable opening, wherein the resealable opening comprises at least one water-tight spout with a mating resealable cap, and wherein the resealable cap comprises a bracket for receiving one or more reuseable temperature indicators for indicating the temperature history of the water contained therein, at least one energy converting structure for collecting solar energy and imparting it to water within the container, and first and second insulation structures which, collectively, are sufficient to minimize heat loss to surfaces that may be in contact with the container, thereby enabling one to achieve water temperatures of at least 60°C, and monitor the temperature history of the water. Solar water pasteurizers according to the present invention are thus capable of pasteurizing water by heating the liquid contained therein to temperatures of at least 60°C.

By the present communication, claims 1-3, 6-15, 17-22, 24-26, 28-31, 33-35, 37, 39, 43 and 47 have been amended to define Applicant's invention with greater particularity. No new matter has been introduced by the subject amendments as all amended and new claim language is fully supported by the specification and original claims. In addition, claims 4, 5, 8, 11, 16, 23, 27, 32, 35, 36, 40-42, 45, 46 and 48-56

(i.e., a total of 24 claims) have been cancelled without prejudice, subject to Applicant's right to file one or more divisional application(s) based thereon. The claim amendments submitted herewith are respectfully submitted to place this application in condition for allowance, or at a minimum, in better condition for appeal. Moreover, the number of claims presented for consideration has significantly been reduced from 56 to 32. Accordingly, entry of the amendments submitted herewith is respectfully requested.

While it is not clear on the record, the discussion at pages 2-3 of the Office Action (Paper No. 8), suggests that the rejection of claims 1, 3-7, 9, 12, 13, 16, 22, 43, 46 and 48 under 35 U.S.C. 102(b) as allegedly being anticipated by Billingham, International Publication No. WO86/07627 (1986) has been maintained. If this is not correct, clarification of the record is respectfully requested. In any event, to the extent that the rejection has been maintained, the rejection is again respectfully traversed. Applicant's invention, as defined for example, by amended claim 1, distinguishes over Billingham by requiring a one-piece solar water heater, i.e.,

> a flexible water-tight resealable container, wherein the container comprises a top and a bottom, wherein the bottom comprises at least one resealable opening, wherein the resealable opening comprises at least one water-tight spout with a mating resealable cap, and wherein the resealable cap comprises a bracket for receiving one or more reuseable temperature indicators for indicating the temperature history of the water contained therein,
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> one or more energy converting structures therein, as an integral part of the container,
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> a first insulation structure on the top of the container, wherein the first insulation structure comprises gas contained within air-tight structures, and
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> a second insulation structure on the bottom of the container, wherein the second insulation structure is selected from gas contained within air-tight structures, closed cell foam or open cell foam,
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> wherein the insulation structures collectively are sufficient to enable the pasteurizer to achieve water temperatures of at least 60° C, wherein the insulation structures are an integral part of said container.

Billingham does not disclose or suggest such a solar heater. Indeed, Billingham does not contemplate use of any temperature indicator for monitoring the temperature history of the water contained therein.

The Examiner's assertion that claims 1-55 of this application allegedly conflict with claims 1-55 of U.S. Patent Application No. 09/788,336 is acknowledged. Applicant will address this matter when all other issues in this case have been resolved and the present claims are otherwise in condition for allowance.

The rejection of claims 1-13, 16-42 and 44-52 [55?] under 35 U.S.C. 103(a) as allegedly being unpatentable over Luboschik et al. (D.E. 2851793, 1980) in view of Billingham and Kircus (U.S. 4,328,790 (1982), is respectfully traversed. Applicant's invention, as defined, for example, by amended claim 1, distinguishes over the art by requiring a solar water heater capable of achieving water temperatures of at least 60°C, i.e., temperatures sufficient to pasteurize water.

Luboschik does not disclose or suggest such a solar water heater. Indeed, the Luboschik device is not capable of achieving temperatures necessary to accomplish pasteurization in a reasonable amount of time. Moreover, the materials used by Luboschik are not compatible with production of potable water.

Further reliance on Billingham is unable to cure the deficiencies of Luboschik. While Luboschik is directed to a solar shower (for which temperatures less than about 55°C are suitable), Billingham contemplates temperatures as high as 75°C (see page 11, main paragraph), clearly much too high for the purposes contemplated by Luboschik. Accordingly, combination of these two references is clearly improper.

Further reliance on Kircus is similarly unable to cure the deficiencies of Luboschik and Billingham. None of the applied art discloses or suggests a solar water heater having

the features required by the present claims, especially the requirement for a temperature indicator for monitoring the temperature history of the water contained therein.

Moreover, if combination of these references was actually obvious, why has no one else done so in the more than 15 years since these references were first publicly available? The discussion in the paragraph bridging pages 5-7 of the Office Action clearly addresses this question. Note the numerous modifications acknowledged by the Examiner to be required to convert the prior art devices to the invention device. It is clearly only with improper hindsight, having benefit of Applicant's disclosure, that these required modifications can be identified. Clearly, absent Applicant's disclosure, there is no motivation to combine the asserted references; even if there was such motivation, there is no guidance as to which features one should pick and choose from the prior art to arrive at Applicant's invention. Accordingly, reconsideration and withdrawal of the rejection over Luboschik in view of Billingham and Kircus are respectfully requested.

The rejection of claims 14, 15 and 43 under 35 U.S.C. 103(a) as allegedly being unpatentable over Luboschik in view of Billingham and Kircus, as applied to claims 1 and 43 above, and further in view of Homsy, et al., U.S. Pat. No. 4,243,021 (1981) or Posnansky, U.S. Pat. No. 4,196,721 (1980), is respectfully traversed. As discussed above, the combination of Luboschik, Billingham and Kircus is unable to render obvious the present invention. Further reliance on Homsy, et al. or Posnansky is unable to cure the deficiencies of the combination of Luboschik, Billingham and Kircus. Neither Homsy, et al., nor Posnansky disclose or suggest a one-piece solar water heater as required by the present claims. The Examiner's reliance on these references for the mere disclosure, in a very different context, of a single feature which may be similar to a feature of the claimed solar water heater, is clear evidence of the improper hindsight with which these references have been applied to the present claims. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

The supplemental art provided by the Examiner to Applicant's representative at the personal interview is noted on a Form/SB/08 so as to ensure it is properly made of record. None of the newly cited patents are any more relevant than the art previously made of record. Indeed, many of the newly cited patents are submitted to be irrelevant to the present claims. For example, a reference related to "Contact Lens Capsule" (US 3,939,968) is submitted to be non-analogous art. Similarly, references related to blood storage (e.g., US 2,856,886 and US 2,856,930) are also submitted to be non-analogous art.

In view of the above amendments and remarks, reconsideration and favorable action on all claims are respectfully requested. In the event any issues remain to be resolved in view of this communication, the Examiner is invited to contact the undersigned at the number given below so that a prompt disposition of this application can be achieved.

Respectfully submitted,

Date 7/31/03

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Enclosures: Form SB/08 and references